- CONFIDENTIAL BRIEF -

Assessment of MasterLINK Prototype Software Demonstration

June 21, 1999

Al Vazquez

665 Seville Court • Satellite Beach • FL 32937 • 407-777-3769 • Fax 407-777-2997 • avazquezcuervo@mba1982.hbs.edu

Exhibit 5

Summary

MasterLINK demonstrated the viability of their core software and architecture to Dave Kershaw-TRDA, Tom Davis-TRDA consultant, and Al Vazquez, information technology investment consultant to TRDA in a half day meeting June 21, 1999. MasterLINK staff presenting included Kent Weisner, President, Ken Levine, Vice President and Chief Technology Officer, and Garry Fenimore, Vice President and Chief Domain Officer.

MasterLINK met commitments to demonstrate a prototype that addressed technical challenges they documented prior to the meeting in an Agenda for structured observation (Exhibit 1)

We observed 15 screens that demonstrated basic functionality in:

- business process policy
- work planning
- work scheduling
- costed simulation of alternative schedules
- task dispatching
- work progress tracking
- extraction of reportable information

Strategic, differentiating aspects of MasterLINK's apparent prototype architecture included:

- web-enabled, 3 tier client-server construction
- 100% browser based user interface
- intelligent agents written in C++
- agents bridged to the user interface with CORBA
- object types based on industry standard Construction Specification Institute (CSI)

The demonstration was completed with no apparent software failures, crashes, or error messages.

Given the demonstration, the lack of a demonstrable prototype should no longer impede consideration for TRDA funding.

At the request of Dave Kershaw, I also documented my impressions of business issues, outside of the defined scope of work, in the Appendix to this brief.

Al Vazquez

Alfonso Vazquez-Cuervo

Information Technology Investment Consultant

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Assessment of the Demonstration

My proprietary four-part model for structured observation of information technology demonstrations was used to assess the MasterLINK prototype software.

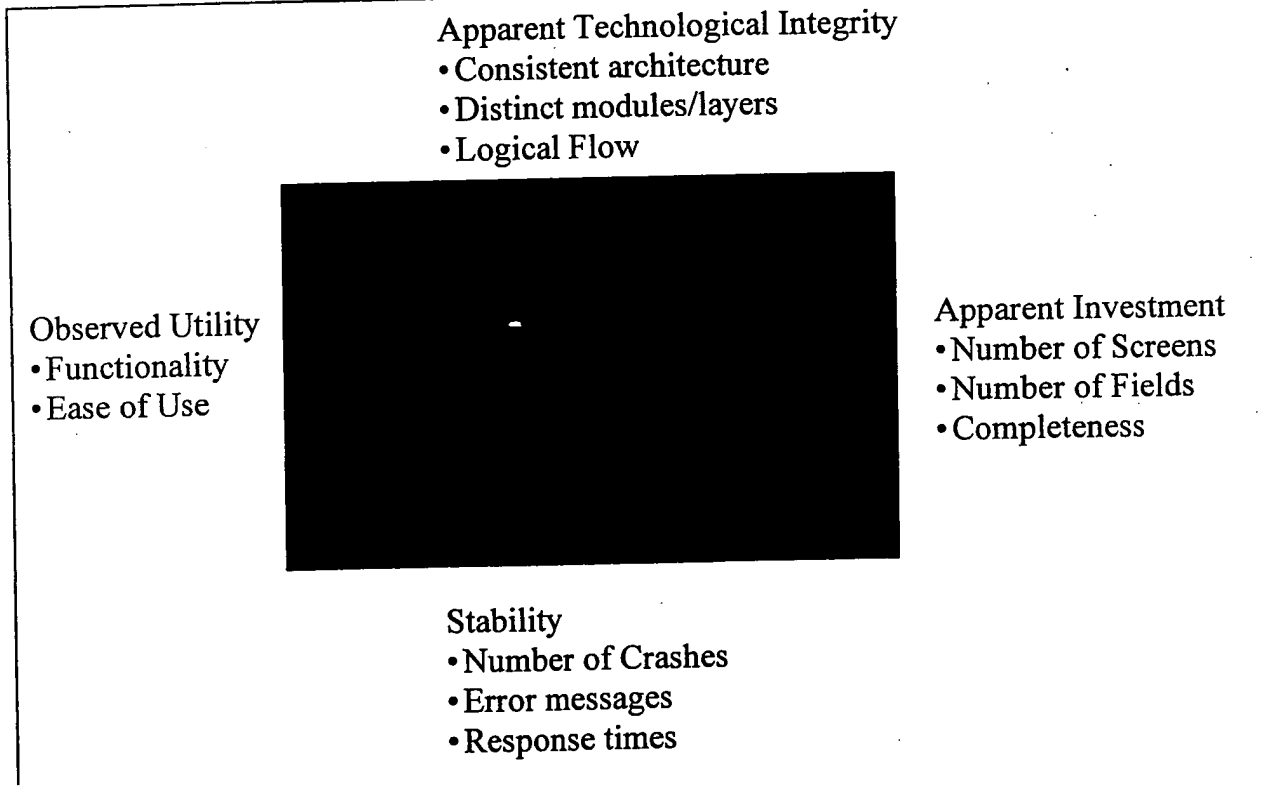
The model recognizes three qualitatively distinct sources of information that affect assessment of software demonstrations:

1. Commitments made by the vendors about the software prior to the meeting
2. What is actually observed of the software screens during the demonstration
3. Presentation outside of the software itself e.g. documents, charts, dialogue, etc.

The model also contains four categories of metrics to assess information technology demonstrations:

1. Apparent Technological Integrity of the observed software
2. Apparent Investment made in the observed software
3. Observed Utility of the software in terms of relevant functionality and ease of use
4. Stability of the demonstration software (note that this is not quality, just stability).

Assessment Metrics Model for Technology Demonstrations



The TRDA team was also briefed on this model before the meeting with MasterLINK to help assess the prototype as comprehensively as possible.

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The following more detailed report documents my assessment of the demonstration using this model's framework to qualify what I learned. MasterLINK's commitments relative to the demonstration are addressed below.

Commitment

In preparation for the demonstration of the prototype, I contacted MasterLINK to help them document a structured agenda for the prototype demonstration. The agenda they sent us a few days prior to the meeting is attached as Exhibit 1.

MasterLINK met these commitments during the demonstration through a mix of actual software observation combined with presentation and dialogue about technical architecture as detailed below.

Observation (O) and Presentation (P)

Apparent Technological Integrity

Consistent architecture
- Corba throughout (P)
- C++ agents (P)
- Browser enabled user interface (O)

Distinct modules/layers
- Object oriented construction (P)
- Three-Layer client-server in the prototype:
  1. Client server (web-enabled) (O)
  2. Application server (P)
  3. Database server with encapsulated SQL and Oracle (P)
- Object Model used to systematically relate work Targets (O, P) to:
  - Definition information
  - Tasks associated with that work target
  - Jobs defining groups of tasks
  - Workers
  - Schedules of workers
  - Work date requirements
  - Relationships to other work targets

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Logical Flow

- American Institute of Architecture (ATA) Construction Specification Institute (CSI) taxonomy used to organize objects (P)
- Functional flow of the prototype followed the flow of work progress (O)

Observed Utility

Functionality

- Business process policy(O)
- Work planning(O)
- Work scheduling(O)
- Costed simulation of alternative schedules (O)
- Task dispatching (O)
- Work status tracking through 5 defined state changes governed by rules(O):
  1. PJO=Pending Job Order
  2. RFS=Ready for Scheduling
  3. SPD=Scheduled Pending Dispatch
  4. DPD=Dispatchable Pending Dispatch
  5. DJO=Dispatched Job Order
- Extraction of report information(O)

Ease of Use

-Relatively easy plain-English configuration rules expressed as logical operators(O)
-Basic graphical user interface (O)
-Reports expressed as simple lists (O) though full report writer not yet implemented

Apparent Investment

-MasterLINK stated they spent 30 man-weeks of effort on the prototype (P)

Number of Screens

-15 different screens (O)
-Lists were observed indicating dozens of libraries to run the prototype (O)

Number of Fields

-Screens had the basic set of fields to needed demonstrate functionality (O)

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Completeness

-Screens demonstrated basic intelligent work flow functionality (O)

-A representative architecture was apparent (P,O)

-No functionality was observed for scheduling integrated with material availability (O) Stores inventory management is common (though generic) functionality in many maintenance management applications. MasterLINK stated that their facility maintenance target market niche will probably not need it, but they felt that such generic, integrated materials management functionality could be readily incorporated if required (P).

Stability

Number of Crashes

- None(O)

Error messages

- None(O)

Response times

- From sub-second to less than one minute for large schedule simulations(O)
- Prototype ran a 16 worker, 500 work target model on a single Pentium 2 server(O,P)

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